#### Thalestris longimanus, Claus.

Fig. 8. Female, seen from the side, × 40. 9. One of the antennules, × 135. 10. One of the second maxillipeds, × 105. 11. Foot of first pair, × 105. 12. Foot of fifth pair, × 158. 13. Part of abdomen and caudal furca, enlarged.

#### (?) Herrmanella finmarchica, sp. n.

Fig. 14. Female, dorsal view, × 40. 15. One of the antennules (imperfect), × 10s. 16. One of the antennæ (imperfect), × 10s. 17. One of the first maxillipeds, × 220. 18. One of the second maxillipeds, × 146. 19. Foot of first pair, × 154.

## II.—A Revision of the Genera of the ARANEÆ or Spiders, with Reference to their Type Species. By F. PICKARD-CAMBRIDGE, B.A., F.Z.S.

THE following notes contain the conclusions which have been reached as to the species which, on consistent principles of settlement, ought to be regarded as the types of the various genera dealt with.

The genera include those published by Menge in Preuss. Spinn. 1866–78, by J. H. Emerton in Trans. Conn. Acad. vol. vi. 1882, by Friedk. Dahl in Schrift. Naturwiss. Schleswig-Holstein, Bd. vi. 1886, and in Sitz.-Bericht Gesell. nat. Freunde, Berlin, 1901, and by Embr. Strand in Archiv Mathem. Natur. B. xxiv. NR. 2, Kristiania, 1901.

I also take this opportunity to correct some slips in my former papers and errors occasioned by oversights, or new facts, in connexion with the various steps referred to in the process of ascertaining the types.

As regards Menge's genera: whenever he definitely cites a Tab. referring to a single species under the new generic name and before the diagnosis, I regard the species thus referred to as specially characteristic of the genus, and therefore as the type; though I have in most cases below traced out the history of the other species involved, for the sake of reference in case of future disputation.

In quoting the name *Walckenaera*, auct., it is here spelt as it was originally by Blackwall, *Walckenaeria*, and the former is regarded as a misquotation of the latter.

Ann. & Mag. Nat. Hist. ser. 7, vol. xi. (Jan. 1902), p. 9. Line 1.—Argus, a nom. præoce. by Bohadsch, Anim. Marin. p. 65, Moll. Gastr. 1761. Line 16.-W. cristata is a clerical error for cuspidata, Blackw.

Line 23.—Owing to the fact that Arrecerus camelinus was removed to *Phalops* by Menge in 1868 under *Theridium cornutum*, Wid., A. monoceros (Wid.) is left as the type of Arrecerus, Simon, and cannot be the type of *Prosopotheca*, as here stated.

See loc. cit. p. 10; lines 10-18 should read as follows :-

## ARRECERUS, Simon, 1864.

Of the two species included originally, the first, A. camelinus (C. Koch),= Ther. cornutum, Wid., and Walck. acuminatum, Blackw., was withdrawn by Menge under Phalops in 1868, leaving A. monoceros (Wid.) as the type.

Type, Arrecerus monoceros (Wid.), 1834.

#### PROSOPOTHECA, Simon, Ar. Fr. v. p. 829 (1884).

Five species were originally referred to this genus:— (1) Neriene incisa, O. P.-Cambr.; (2) Erigone corniculans, O. P.-Cambr.; (3) Prosopotheca crocata, Simon; (4) Theridium monoceros, Wid.; (5) P. erythrina, Simon.

The fourth, *T. monoceros*, selected by Simon (Hist. Nat. Ar. ii. p. 662, 1894) as the type, has been by elimination left in as the type of *Arrecerus*, Simon, and cannot therefore serve.

Since I cannot find that any other species has ever been selected, nor the genus otherwise broken up, I here select *Neriene incisa*, O. P.-Cambr., as the type.

Type, Prosopotheca incisa (O. P.-Cambr.), 1871.-Europe.

#### List of Genera referred to.

Cyclosa, Menge, p. 34. \* Cerceis, Menge, p. 34. Bathyphantes, Menge, p. 34. \*Pedina, Menge, p. 35. Helophora, Menge, p. 35. \*Stylophora, Menge, p. 35. Lepthyphantes, Menge, p. 36. Stemonyphantes, Menge, p. 36. Drapetisca, Menge, p. 36. Crustulina, Menge, p. 36. Crustulina, Menge, p. 36. \*Certatina, Menge, p. 36. \*Lewyopis, Menge, p. 36. \*Puchydactylus, Menge, p. 37. Flatyopis, Menge, p. 37. Gonatium, Menge, p. 37. Gongylidium, Menge, p. 37. Tmeticus, Menge, p. 37. Dicymbium, Menge, p. 38. Lophocarenum, Menge, p. 38. Lophomma, Menge, p. 39.

- \*Phalops, Menge, p. 40. \*Dicyphus, Menge, p. 40.
- Elaphidion, Menge, p. 40. Elaphipus, Menge, p. 41. Cornicularia, Menge, p. 41. Microneta, Menge, p. 41. Leptothrix, Menge, p. 42.
- \*Drepandus, Menge, p. 42. Pronopius, Menge, p. 42. Lethia, Menge, p. 42. Cicurina, Menge, p. 43.
- \*Ctenium, Menge, p. 43.

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Scotina, Menge, p. 43.
Drapeta, Menge, p. 43.
Spiraame, Menge, p. 43.
Psammitis, Menge, p. 43.
Marpesia, Menge, p. 44.
Gedipus, Menge, p. 44.
Ceratino, p. 44.
Ceratinopsis, Emerton, p. 44.
Ceratinopsis, Emerton, p. 45.
Spiropalpus, Emerton, p. 45.
Diplostyla, Emerton, p. 46.
Macrargus, Dahl, p. 46.
Micrargus, Dahl, p. 46.

Microctenony.v, Dahl, p. 47. Paractenonyx, Dahl, p. 47. Brachycentrum, Dahl, p. 47. Hypomma, Dahl, p. 47. Hypselomma, Dahl, p. 48. Maebelia, Dahl, p. 48. Trematocephalus, Dahl, p. 48. Trachynotus, Dahl, p. 48. Phyllæca, Dahl, p. 49. Erigonella, Dahl, p. 49. Bolepthyphantes, Strand, p. 49. Hemiphantes, Strand, p. 49. Oreonetides, Strand, p. 49. Utopiellum, Strand, p. 50. Centromeria, Strand, p. 50. Pseudogonatium, Strand, p. 50.

[A \* before a generic name denotes that it is preoccupied.]

CYCLOSA, Menge, Preuss. Spinn. p. 73 (1866).

A single species only was originally referred to this genus —Aranea conica, De Geer.

Type, Cyclosa conica (De Geer), 1778.-Europe.

\*CERCEIS, Menge, Preuss. Spinn. p. 80 (1866).

A single species only was originally referred to this genus - C. prominens (Westr.).

Type, Cerceis prominens (Westring), 1851.-Europe.

The name *Cerceis* was, however, preoccupied by Milne-Edw. in 1840 for Crustacea; and Thorell in 1869 substituted for it the name *Cercidia*.

## BATHYPHANTES, Menge, Preuss. Spinn. p. 111 (1865).

Eleven species were originally included in this genus: (1) B. terricolus, Menge, = nigrinus, Westr.; (2) B. zebrinus, Menge; (3) B. pygmæus (Sund.) = Menge, non Sund.; (4) B. crucifer, Menge; (5) B. longipes, Menge, = B. parvulus (Westr.); (6) B. comatus (Wid.) = B. bicolor, Blackw.; (7) B. angulipalpus (Westr.); (8) B. pallescens (Menge, non Westr.) = inermis on Tab. = Theridion rufum (Wid.); (9) B. cristatus, Menge; (10) B. brevipalpus, Menge; (11) B. setipalpus, Menge, = sylvaticus, Blackw.

The genus was first broken up by Emerton, who, in Sept. 1882, withdrew *B. terricolus*, Menge, = nigrinus, Westr., under his new genus *Diplostyla*. This species therefore, although selected by Simon (Hist. Nat. Ar. ii. p. 705) as the type of Bathyphantes, cannot serve. B. setipalpus, Menge, =sylvaticus, Blackw., was removed to the genus Centromerus by Dahl in 1886; B. comatus, Wid.,=B. bicolor (Blackw.) was removed to Centromeria by Strand in 1901; B. pallescens, Menge,=Theridion rufum, Wid., was removed to Macrargus by Dahl in 1886. Of the rest I cannot find that any have ever been referred to other genera or that a type has been cited. Menge did not himself cite any Tab. as specially characteristic of the genus, so that I here select B. longipes, Menge,=Linyphia parvula (Westr.) as the type. Type, Bathyphantes longipes, Menge, 1866,=B. parvulus (Westr.), 1851.—Germany.

## \*PEDINA, Menge, Preuss. Spinn. p. 125 (1866).

A single species, *Pedina cristata=Linyphia scopigera*, Grube, 1859, was referred to this genus. The name *Pedina* is, however, preoccupied by Agassiz for *Ech.*, 1840.

Type, Pedina scopigera (Grube), 1859.-Europe.

## MENGEA, nom. nov. for Pedina.

The name *Pedina* being preoccupied, I here propose the name *Mengea* to take its place.

Type, Mengea scopigera (Grube), 1859.-Europe.

## HELOPHORA, Menge, Preuss. Spinn. p. 126 (1866).

A single species was originally referred to this genus, Linyphia pallescens, Westr., = Linyphia insignis, Blackw. (sec. Thor. & Sim.).

Type, Helophora pallescens (Westr.), 1851,= H. insignis, Blackw., 1841.-Europe.

# \*STYLOPHORA, Menge, Preuss. Spinn. p. 128 (1866).

These are closely allied, if not identical species, and, although neither was definitely cited by Menge, the first was selected by Simon as the type (Ar. Fr. v. p. 330, 1884).

The name Stylophora, however, is preoccupied by Desv. for Diptera (1830), and its place is taken by Diplostyla, Emert., whose type is also concolor, Wid. (see below).

Type, Stylephora concolor (Wid.), 1834.-Europe.

LEPTHYPHANTES, Menge, Preuss. Spinn. p. 131 (1866).

Two species were originally referred to this genus:-(1) Lepthyphantes muscicola, Menge, p. 131; (2) Aranea crypticola, Walck.; the first being cited (Tab. 53) as characteristic of the genus. The second = (sec. Thor. & Sim.) Nesticus cellulanus (Olivier) was withdrawn as the type of Nesticus in 1869 by Thorell.

Type, Lepthyphantes muscicola, Menge, 1866, = L. minutus (Blackw.), 1833.—Europe.

STEMONYPHANTES, Menge, Preuss. Spinn. p. 138 (1866).

A single species was originally referred to this name-Aranea trilineata, Linn. xii. p. 1031.

Type, Stemonyphantes trilineatus (Linnæus), 1767, = lineatus, Linn., 1758.

DRAPETISCA, Menge, Preuss. Spinn. p. 140 (1866).

A single species only was originally referred to this genus—Linyphia socialis, Sundevall.

Type, Drapetisca socialis (Sundevall).

NEOTTIURA, Menge, Preuss. Spinn. p. 162 (1868).

A single species was referred to this genus—Aranea bimaculata, Linn.,=Theridion bimaculatum, auctores.

Type, Neottiura bimaculata (Linn.), 1767.-Europe.

CRUSTULINA, Menge, Preuss. Spinn. p. 168 (1868).

A single species was originally referred to this genus-Theridium guttatum, Wider.

Type, Crustulina guttata (Wider), 1834.-Europe.

\*CERATINA, Menge, Preuss. Spinn. p. 170 (1868).

Four species were originally included under this name:— (1) Theridium breve, Wider; (2) Ceratina rubella, Menge; (3) C. rotunda, Menge; (4) C. globosa, Menge.

The first species was definitely cited by Menge (Tab. 74) as characteristic of the genus.

Ceratina is, however, a nom. præoce. by Latreille for Hymenoptera (1804). (See Note, p. 50.)

Type, Ceratina brevis (Wid.), 1834.-Europe.

EURYOPIS, Menge, Preuss. Spinn. p. 174 (1868).

Two species were originally included under this name :--

(1) Micryphantes flavomaculatus, Koch; (2) Theridium tristis, Hahn. The first was cited by Menge (Tab. 78) as characteristic of the genus and also by Thorell as the type in 1869.

Type, Euryopis flavomaculata (C. L. Koch), 1836.— Europe.

## \*PACHYDACTYLUS, Menge, Preuss. Spinn. p. 177 (1868).

A single species was originally referred to this genus— Pachydactylus pronus, Menge—regarded by Simon (Hist. Nat. Ar. ii. p. 567) as congeneric with Dipæna, Thorell. The name is preoccupied by Wiegmann in 1834 for Reptilia.

Type, Pachydactylus pronus, Menge, 1868.-Germany.

PLATYOPIS, Menge, Preuss. Spinn. p. 178 (1868).

A single species only was referred to this genus—*Theri*dium sulcifrons, Wider—regarded by Simon (Ar. Fr. v. p. 792) as congeneric with *Panamomops*. The name *Platy*opis is not preoccupied so far as I can find out (sec. Simon, Hist. Nat. Ar. ii. p. 556), but *Platyope* is preoccupied.

Type, Platyopis sulcifrons (Wider), 1834 .- Europe.

## GONATIUM, Menge, Preuss. Spinn. p. 180 (1868).

Two species were originally included under this name:-Theridion cheliferum, Wider; (2) Micryphantes isabellinus, Koch. Both species were cited as characteristic (Tab. 82 & 83) by Menge.

The first, however, was selected as type in 1884 by Simon (Ar. Fr. v. p. 546).

Type, Gonatum cheliferum (Wider), 1834,=G. rubens (Blackw.), 1833.—Europe.

GONGYLIDIUM, Menge, Preuss. Spinn. p. 183 (1868).

A single species was originally referred to this genus— Gongylidium nigricans, Menge (= G. crassipalpum, Menge, pl. xxxiv. Tab. 84)—and is identical with Linyphia rufipes, Sund. (sec. Thor., Sim., and Kulcz.).

Type, Gongylidium nigricans, Menge, 1868,=G. rufipes, Sund., 1830.-Europe.

TMETICUS, Menge, Preuss. Spinn. p. 184 (1868).

Seven species were originally included in this genus: ... (1) T. leptocaulis, Menge; (2) T. foreolatus, Menge; (3) Theridium dentatum (Wider); (4) T. cristatus, Menge; (5) T. spinipalpus, Menge;
(6) Linyphia graminicola, Sund.;
(7) T. hamipalpis, Menge.

Of these species, (2) *T. foveolatus* (= *Erigone retusum*, Westr., sec. Thor., Sim.) was removed to *Kulczynskiellum* in Feb. 1895 by F. P.-Cambridge.

(3) *T. dentatum* was removed to *Trachygnatha* by Kulczynski in 1894.

(4) T. cristatus=(sec. Thorell) T. dentatus.

(7) T. hamipalpis, Menge, =sec. (Thor. & Sîm.) Erigone longimana, C. L. K.,=Neriene vagans, Blk., was removed to Tiso by Simon in 1884.

Of the four species left in, I cannot find that any have been referred to new genera, and Simon has in 1884 (Ar. Fr. v. pp. 378 & 420) cited the first, *T. leptocaulis* = (sec. Thor. & Sim.) *Erigone affinis*, Blackw., as the type, while Menge himself definitely referred (Tab. 85) to the first as characteristic of the genus.

Type, Tmeticus leptocaulis, Menge, 1868,= T. affinis (Blackw.), 1855.-Europe.

## DICYMBIUM, Menge, Preuss. Spinn. p. 193 (1868).

Of the two species, *clavipes*, Menge (=*tibiale*, Blackw.), and *gracilipes*, Menge (=*nigrum*, Blackw.), Simon has selected the first as the type in Ar. Fr. v. p. 541, and the second as the type in Hist. Nat. Ar. ii. p. 658 (1894).

Menge, however, himself cited the first (Tab. 91) as specially characteristic of the genus, and this species=(sec. Thor. & Sim.) Neriene tibialis, Blackwall.

Type, Dicymbium clavipes, Menge, 1868,=D. tibiale (Blackw.), 1836.

## LOPHOCARENUM, Menge, Preuss. Spinn. p. 198 (1868).

Eleven species were originally referred to this genus, but of these Menge definitely cited the first (Tab. 96) as characteristic of the genus, namely:—(1) L. stramineum, Menge; (2) L. bihamatum, Menge; (3) Theridium acuminatum, Wid.; (4) L. parculum, Menge; (5) Erigone erythropus, Westr.; (6) L. apiculatum, Menge; (7) E. scabricula, Westr.; (8) L. dicholophum, Menge; (9) L. globiceps, Menge; (10) L. crassipalpum, Menge; (11) Theridium elongatum, Wider.

L. bihamatum, Menge,= (sec. Thor. & Sim.) Walckenaeria latifrons, O.P.-Cambr., was removed to Plæsiocrærus by Simon in 1884. L. acuminatum, Menge, is not (sec. Thor. & Sim.) identical with acuminatum, Wid. L. parvulum, Menge,= (sec. Thor. & Sim.) W. hiemalis, Blackw., was removed to Troxochrus by Simon in 1884. L. erythropus, Menge (non Westr.,= W. picina, Blackw., sec. Thor. & Sim.), was removed to Plasiocrarus by Simon in 1884. L. apiculatum, Menge,= (sec. Thor. & Sim.) Theridium pusillum, Wid., was removed to Mingriolus by Simon in 1884. E. scabricula (Westr.) was removed to Troxochrus by Simon in 1884. L. dicholophum, Menge,= (sec. Thor.? & Sim.) T. elongatum, Wid., was removed by Dahl to Brachycentrum in 1886. L. globiceps, Menge,= (sec. Thor. & Sim.) W. humilis, Blackw., was removed to Areoncus by Simon in 1884. L. elongatum, Menge,= (sec. Thor. & Sim.) T. parallelum, Wid., was removed to Paractenonyx by Dahl in 1886.

We have therefore (1) L. stramineum, Menge, (3) L. acuminatum, Menge, (10) L. crassipalpum, Menge, left as available for the type.

Simon selected *parallelum*, Wid., as the type of the genus in Hist. Nat. Ar. ii. p. 650 (1894). But, as already mentioned, this had been previously removed to a new genus by Dahl. The first species, too, in any case was cited by Menge (Tab. 96) as specially characteristic of the genus.

Type, Lophocarenum stramineum, Menge, 1868.-Europe.

LOPHOMMA, Menge, Preuss. Spinn. p. 209 (1868).

Nine species were originally referred to this genus:— (1) L. stictocephalum, Menge; (2) L. psilocephalum, Menge; (3) L. cristatum, Menge; (4) Theridium bicorne, Wid.; (5) T. anticum, Wid.; (6) L. flavidum, Menge; (7) Micryphantes cucullatus, C. Koch; (8) L. mitratum, Menge; (9) Erigone capito, Westr.

Of these species, (1) L. stictocephalum = (sec. Thor. & Sim.) Walckenaeria punctata, Blackw.,=(sec. Simon) scrobiculata, Menge, was removed under this latter name by Menge himself to his new genus Microneta (p. 227), but he had already cited stictocephalum (Tab. 108) as specially characteristic of the genus, so that he could not remove it himself.

(2) L. psilocephalum was removed to Trachygnotus by Dahl in 18:6. (3) L. cristatum,=(sec. Thor. & Sim.) monoceros,Wid., was removed to Prosopotheca by Simon in 1884, and has also been left in as the type of Arrecerus, Sim. See above. (4) L. bicorne=(sec. Thor. & Sim.) cristatus, Blackw., was removed to Prosoponcus by Simon in 1884. (7) L. cucullatum (C. Koch) was removed to Ithyomma by Bertkau in 1884.

Of the rest, as mentioned above, the first was cited by

Menge and also by Simon as the type (Ar. Fr. v. p. 533, 1884).

Type, Lophomma stictocephalum, Menge, 1868, = L. punctatum, Blackw., 1841.—Europe.

## \*PHALOPS, Menge, Preuss. Spinn. p. 218 (1868).

Four species were originally included under this name:— (1) Theridium cornutum, Wider; (2) Erigone conica, Westring; (3) E. gibbicollis, Westring; (4) Phalops furcillatus, Menge.

Of these species, the first was cited by Menge (Tab. 117) as characteristic of the genus. It is identical (sec. Thor. & Sim.) with Walckenaeria acuminata, Blackw. The second = (sec. Thor. & Sim.) Savignia frontata, Blackw., being the type of this genus. The third=(sec. Thor. & Sim.) Erigone apicata, Blackw. (1850), and was cited as the type of Stylothorax by Bertkau (1883). The fourth was removed to Tigellinus by Simon in 1884.

The first species is in any case the type, being cited by Menge. The name *Phalops*, however, is preoccupied by Erichson (*Phalops*, Deutschl. Insect. iii. p. 763, 1848).

Type, *Phalops cornutus* (Wid.), 1834,=*P. acuminatus* (Blackw.), 1833—Europe.

## \*DICYPHUS, Menge, Preuss. Spinn. p. 221 (1869).

Three species were originally referred to this genus :---(1) D. tumidus, Menge; (2) D. cilunculus, Menge; (3) D. bicuspidatus, Menge (Koch?).

Of these, Menge cited the first (Tab. 121) as characteristic of the genus and (see. Thor. & Sim.) = Theridium bituberculatum, Wider. The second = (see. Thor. & Sim.) Neriene cornuta, Blackw., and the third = (see. Simon) Micryphantes elevatus, Koch. Both these last species were removed to Dismodicus by Simon in 1884. The name Dicyphus is preoccupied by Fiebuhr for Hemiptera.

Type, Dicyphus tumidus, Menge, 1869,=D. bituberculatus (Wid.), 1834.—Europe.

\*ELAPHIDION, Menge, Preuss. Spinn. p. 224 (1869).

A single species was originally referred to this genus-E. flagelliferum, Menge.

The name *Elaphidion* has been changed to *Elaphipus* by Menge in his Index (p. 8), and quoted as *Elaphopus* by Simon (Hist. Nat. Ar. ii. p. 697). It was proceeded by Serv. in 1834 for Coleoptera. The name *Elaphipus* (not *Elaphopus*, as in Scudder) takes its place.

Type, Elaphidion flagelliferum, Menge, 1869.-Europe.

ELAPHIPUS, Menge, Preuss. Spinn., Index, p. 10 (1878).

Nom. nov. for Elaphidion. Type, Elaphipus flagellifer, Menge.

CORNICULARIA, Menge, Preuss. Spinn. p. 226 (1869).

A single species only was originally referred to this genus:—*Theridion monoceros*, Wid. This, however, is obviously not the species diagnosed and figured by Menge. He has wrongly identified *monoceros*, Wider, and his genus is based on his diagnosis and figures, which, so far as we can at present tell, = *Walckenaeria unicorais*, O. P.-Cambr. (sec. Thor. & Sim.).

Type, Cornicularia unicornis (O. P.-Cambr.), 1831.-Europe.

MICRONETA, Menge, Preuss. Spinn. p. 227 (1869).

Nine species were originally included in this genus:— (1) M. scrobiculata, Menge; (2) Micryphantes ochropus, Koch; (3) Erigone quisquiliarum, Westr.; (4) Micryphantes tessellata, Koch; (5) M. pusilla, Menge; (6) Erigone Sundsvallii, Westr.; (7) M. gracilis, Menge; (8) M. pygmar, Menge; (9) M. bifida, Menge,=M. biloba on the plate.

Of these, Menge has not specially cited any species before the generic diagnosis.

(1) M. scrobiculata, Menge, was cited on p. 200 of this same work as the type of Lophomma if it = (as sec. Thor. & Sim.) L. stictocephalum, Menge.

(2) M. ochropus, Koch, = (sec. Thor. & Sim.) Theridium pusillum, Wid, but has been wrongly identified by Menge. M. ochropus, Menge, = (sec. Thor. & Sim.) Neriene innotabilis, O. P.-Cambr.

(3) E. quisquiliarum, Westr.,=(see. Thor. & Sim) Neriene viaria, Blackw.

(4) *M. tessellata*, C. Koch (sec. Thor., impossible to decide its identity); but *M. tessellata*, Menge,= (sec. Thor. & Sim.) *Neriene fusca*, Blackw., and has been removed in 1895 to *Kulczynskie/lam*, F. P.-Cambr.

(6) E. Sundevallii, Westr., was removed to Maso by Simon in 1884 and to Phyllæca by Dahl in 1886.

(7) M. gracilis, Menge, is (sec. Simon) "probably a Syedra," but was not definitely removed to that genus in 1884.

Of the rest, it is doubtful what species are represented by (5) M. pusilla, Menge, (8) M. pygmæa, Menge, (9) M. bift  $l_{2}$ , Menge, although Kulczynski, in his Index Ar. Hungariae, refers to ii. page 113 as reference for M. pusilla, Menge. But there is no mention of the species on that page, at any rate in connexion with Menge.

We have left in, therefore, numbers (2), (3), (5), (7), (8), and (9), and, as far as I can make out, Simon was the first to select a type for the genus (Hist. Nat. Ar. ii. p. 703, 1894). He cited *M. viaria*, Blackw., which = *M. quisquiliarum* (Westr.), as the type.

Type, Microneta quisquiliarum (Westr.), 1851, = M. viaria, Blackwall, 1841.—Europe.

LEPTOTHRIX, Menge, Preuss. Spinn. p. 240 (1869).

A single species was originally referred to this genus-L. clavipes, Menge,= (sec. Thor. & Sim.) Walckenaeria Hardii, Blackw., 1850.

Typé, Leptothrix clavipes, Menge, 1869, = Hardii (Blackw.), 1850.—Germany.

\*DREPANODUS, Menge, Preuss. Spinn. p. 241 (1869).

A single species was originally referred to this genus-D. obscurus, Menge,=(sec. Simon) Theridium thoracicum, Hahn.

The name *Drepanodus* is preoccupied by Pand. in 1856 for Pisces.

Type, Drepanodus obscurus, Menge, 1868, = thoracicus (Hahn), 1831.—Germany.

PRONOPIUS, Menge, Preuss. Spinn. p. 243 (1869).

A single species was originally referred to this genus-P. providus, Menge.

Type, Pronopius providus, Menge, 1869.-Germany.

LETHIA, Menge, Preuss. Spinn. p. 249 (1869).

The first, which = (sec. Thor. & Sim.) *Cinifo humilis*, Blackw., was cited by Menge (Tab. 145) as characteristic of the genus.

Type, Lethia varia, Menge, 1869,=L. humilis (Blackw.), 1855. CICURINA, Menge, Preuss. Spinn. p. 271 (1871).

A single species was originally referred to this genus— Cicurina cicur, Menge. Regarded by Menge as = Tegenariacicurea, Koch, = (sec. Thor. & Sim.) Aranea cinerea, Panz.

Type, Cicurrina cicur, Menge, 1871,= C. cinerea (Panzer), 1793.—Europe.

\*CTENIUM, Menge, Preuss. Spinn. p. 292 (1871).

A single species was originally referred to this genus-Erigone pinguis, Westring,=(sec. Thor. & Sim.) Neriene livida, Blackw.

Ctenium is, however, a nom. præocc. by Panzer, Lepid., 1825.

Type, Ctenium pingue (Westring), 1851,=C. lividum, Blackw., 1836.

SCOTINA, Menge, Preuss. Spinn. p. 337 (1873).

A single species was originally referred to this genus-Agelena gracilipes, Blackwall.

Type, Scotina gracilipes (Blackwall), 1864.-England.

DRAPETA, Menge, Preuss. Spinn. p. 387 (1874).

A single species was originally referred to this genus— D. aneus, Menge—which probably belongs to the genus *Philodromus* as at present understood. The generic name is, however, pointed by Simon in Hist. Nat. Ar. ii. p. 1063 &c.

Type, Drapeta æneus, Menge, 1874 .-- Germany.

SPIRACME, Menge, Preuss. Spinn. p. 446 (1875).

A single species was originally referred to this genus— S. striata, Menge—and probably belongs to the genus Xysticus, Koch.

Type, Spiracme striata, Menge, 1875.-Germany.

PSAMMITIS, Menge, Preuss. Spinn. p. 448 (1875).

Both were cited by Menge (Tab. 254 & 255) as characteristic of the genus, and I therefore here select the first as the type.

Type, Psammitis sabulosus (Hahn), 1831.-Europe.

MARPESIA, Menge, Preuss. Spinn. p. 471 (1876).

A single species was originally referred to this genus-*M. arenicola*, Menge-and belongs to the fam. Salticidæ. Type, *Marpesia arenicola*, Menge, 1876.-Germany.

ŒDIPUS, Menge, Preuss. Spinn. p. 482 (1876).

A single species was originally referred to this genus-Ballus œnescens, Simon, Mon. Att. p. 628-and belongs to the family Salticidæ.

Type, Edipus anescens (Simon).

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SCARTES, Menge, Preuss. Spinn. p. 494 (1877).

A single species was originally referred to this genus-S. parvulus, Menge-which belongs to the family Salticidæ. Type, Scartes parvulus, Menge, 1877.-Germany.

J. H. EMERTON. "New Zealand Therididæ," Trans. Conn. Acad. vol. vi. (Sept. 1882).

THERIDULA, Emerton, Trans. Conn. Acad. vi. p. 25 (1882).

A single species was originally referred to this genus-Theridion spherula, Hentz.

Type, Theridula sphærula (Hentz), 1850 .- N. America.

CERATINELLA, Emerton, Trans. Conn. Acad. vi. p. 32 (1882).

Ten species were originally included in this genus:---(1) Erigone Emertoni, O. P.-Cambr.; (2) E. fissiceps, O. P.-Cambr.; (3) C. bulbosa, Emerton; (4) C. pygmeea, Emerton; (5) E. atriceps, O. P.-Cambr.; (6) E. læta, O. P.-Cambr.; (7) E. lætabilis, O. P.-Cambr.; (8) C. brunnea, Emerton; (9) C. minuta; (10) C. micropalpis, Emerton.

These alone must be taken into consideration in settling the type of *Ceratinella*; for this is not a case of the definite substitution of one name for another, as Simon suggests (Ar. Fr. v. p. 595), but a new genus is founded with definite species quoted under it; and *Ceraticelus*, proposed by Simon to include the species placed by Emerton under *Ceratinella*, which were not congeneric with Menge's *Ceratina*, will become a synonym of the former. It is of the utmost importance, in view of avoiding future complications, to keep these points clear and distinct. So far as I can make out, no type had definitely been selected for *Ceratinella* until Simon selected *Theridium breve*, Wid. (Hist. Nat. Ar. ii. p. 649, 1894).

Type, Ceratinella brevis (Wid.), 1834.-Europe.

CERATINOPSIS, Emerton, Trans. Conn. Acad. vol. vi. p. 36 (1882).

Four species were originally referred to this genus:— (1) Erigone interpres, O. P.-Cambr.; (2) Ceratinopsis nigriceps, Emert.; (3) C. laticeps, Emert.; (4) C. nigripalpis, Emert.

I cannot find that any of these species have ever been removed to a new genus, but the type was definitely selected by Simon (Hist. Nat. Ar. ii. p. 673, 1894), *C. interpres*, O. P.-Cambr.).

GRAMMONOTA, Emerton, Trans. Conn. Acad. vol. vi. p. 38 (1882).

Three species were originally referred to this genus:— (1) Erigone pictilis, O. P.-Cambr.; (2) Erigone ornata, O. P.-Cambr.; (3) G. inornata, Emert.

I cannot find that any of these have ever been removed to a new genus, but the type was definitely selected by Simon (Hist, Nat. Ar. ii. p. 666, 1894), *Erigone pictulis*, O. P.-Cambr.

Type, Grammonota pictilis (O. P.-Cambr.), 1875.-N. America.

SPIROPALPUS, Emerton, Trans. Conn. Acad. vol. vi. p. 39 (1882).

A single species was originally referred to this genus-Spiropalpus spiralis, Emerton.

Type, Spiropalpus spiralis, Emerton, 1882 .- N. America.

UIPLOSTYLA, Emerton, Trans. Conn. Acad. vol. vi. p. 65 (1882).

Three species were originally included which must be taken into consideration in the settlement:-(1) Linyphia concolor, Wid.; (2) Bathyphantes nigrinus (Westr.); (3) Diplostyla canadensis, Emert.

None of these have, so far as I can ascertain, been removed to new genera, nor has the type of Diplostyla been selected, and I here select *L. concolor*, Wid., as the type. Diplostylus, not Diplostyla, is preoccupied by Salter for Crustacea, 1863.

Type, Diplostyla concolor (Wid.), 1834.-Europe.

- DR. FRIEDK. DAHL. "Monographie Erigonen-Arten &c.," in Schriften des naturwissenschaftlichen Vereins für Schleswig-Holstein. 1886.
- CENTROMERUS, Dahl, Schrift. natur. Schl.-Holstein, Bd. vi. p. 73 (1886).

Five species were originally included in this genus:-(1) Micryphantes aqualis, C. K.; (2) Neriene sylvatica, Bl.; (3) Erigone publication, Cambr.; (4) Timeticus illibitus, Sim.;

(4) N. montana, Blackw.,=timidus, Sim. (Ar. Fr. v. p. 407).

So far as I can make out, none of these have been removed to new genera, nor can I find that the type has ever been definitely selected. I therefore here select *Neriene sylvatica*, Blackw., as the type.

Type, Centromerus sylvaticus (Blackw.), 1841.-England.

MACRARGUS, Dahl, Schrift. natur. Schl.-Holstein, Bd. vi. p. 76 (1886).

One species only is here referred to this genus—*Theridium* rufum, Wid.

Type, Macrargus rufus (Wider), 1834 .- Europe.

EUSTICHOTHRIX, Dahl, Schrift. natur. Schl.-Holstein, Bd. vi. p. 78 (1886).

Two species were originally referred to this genus:-(1) Theridion sanguinolentum, Walck.; (2) Walckenaeria obscura, Blackw.

The first was already preoccupied as the type, being the only species referred to it of *Nematogmus*, Simon, 1884. The second is therefore left in as the type.

Type, Eustichothrix obscurus (Blackw.), 1834.-England.

MICRARGUS, Dahl, Schrift. natur. Schl.-Holstein, Bd. vi. p. 79 (1886).

Three species were originally referred to this genus:-(1) Neriene herbigrada, Cambr., misprint for Blackw.; (2) Walchenaeria diceros, Cambr.; (3) Neriene latebricola, Cambr.

I cannot find that any of these have been since referred to new genera, although Simon has cited the last—*latebricola*, Cambr.—as the type of his *Gongylidiellum* (Hist. Nat. Ar. ii. p. 669, 1894). But this cannot, of course, stand, since Dahl had then broken up the genus and removed the species to *Micrargus*.

I here select M. herbigradus (Blackw.) as the type.

Type, Micrargus herbigradus (Blackw.), 1854.-England.

MICROCTENONYX, Dahl, Schrift. natur. Schl.-Holstein, Bd. vi. p. S0 (1886).

Three species were originally included in this genus:-(1) Erigone subitanea, Cambr.; (2) Micryphantes ovatus, C. Koch; (3) Erigone longimana, C. Koch.

So far as I can discover, none of these have since been removed to new genera. I therefore select the first—*Erigone* subitanea, O. P.-Cambr.—as the type, for the genus will probably go as a synonym whichever may be selected. Sinon has selected (Hist. Nat. Ar. ii. p. 653, 1894) longimunus= vagans as type of *Tiso*; but this cannot stand, having been already removed to a new genus by Dahl.

Type, Microctenonyx subitaneus (O. P.-Cambr.), 1875.-England.

PARACTENONYX, Dahl, Schrift. natur. Schl.-Holstein, Bd. vi. p. 85 (1886).

A single species was originally referred to this genus-Theridium parallelum, Wid.

Type, Paractenonyx parallelus (Wid.), 1834.

BRACHYCENTRUM, Dahl, Schrift. natur. Schl.-Holstein, Bd. vi. p. 86 (1886).

Two species were originally referred to this genus :---(1) Theridium elongatum, Wid.; (2) B. Mæbi, Dahl.

Neither of these having been removed to a new genus, I select the first as the type.

Type, Brachycentrum elongatum (Wid.), 1834.

HYPOMMA, Dahl, Schrift. natur. Schl.-Holstein, Bd. vi. p. 87 (1886).

The second species had already (1884) been definitely cited as the type of *Dicyphus*, Menge, by Simon (Ar. Fr. p. 546). And since this is not a case of simple substitution of a new generic name for one preoccupied—a new species, not originally included, having been added—*T. bituberculatum* is not necessarily the type also of *Hypomma*, and furthermore ought not to serve. The first remains as the type, and cannot in any case be the type of *Dismodicus*, as cited by Simon (Hist. Nat. Ar. ii. p. 665, 1894), having already been removed to a new genus by Dahl.

Type, Hypomma bifrons (Blackw.), 1841.-England.

## HYPSELOMMA, Dahl, Schrift. natur. Schl.-Holstein, Bd. vi. p. 91 (1886).

A single species was originally referred to this genus— Walckenaeria altifrons, O. P.-Cambr.,=Theridium acuminatum, Wid. (sec. Thor. & Sim.), and cannot serve as the type of Entelecara, as cited by Simon (Hist. Nat. Ar. ii. p. 658, 1894), having already been removed to a new genus by Tahl.

Type, Hypselomma acuminata (Wid.), 1834,= W. altifrons, O. P.-Cambr., 1863.

MEBELIA, Dahl, Schrift. natur. Schl.-Holstein, Bl. vi. p. 91 (1886).

Two species were originally referred to this genus:-(1) Erigone penicillata, Westr.; (2) Walckenaeria picina (Blk.).

Neither of these has, so far as I can make out, been since removed to a new genus, nor has the type been cited. I therefore select the first—*E. penicillata*, Westr.—as the type.

Type, Mæbelia penicillata (Westr.), 1851.-Sweden.

TREMATOCEPHALUS, Dahl, Schrift. natur. Schl.-Holstein, Bd. vi. p. 91 (1886).

A single species was originally referred to this genus— Erigone perforata, Thor.,= Theridion cristitum, Wid.—the last name having priority.

Type, Trematocephalus perforatus (Thor.), 1871,= T. cristatus (Wid.), 1834.

TRACHYNOTUS, Dahl, Schrift. natur. Schl.-Holstein, Bd. vi. p. 95 (1886).

Four species were originally included in this genus:-(1) Walckenaeria obtusus (Blk.); (2) Lophomma psilocephalum, Menge; (3) Walckenaeria unicornis, O. P.-Cambr.; (4) Walckenaeria cuspidata, Blk.

Of these, no. 3 is the type (if, as sec. Thor. & Sim., it =monoceros, Menge) of Cornicularia, Menge. No. 4 was left in by elimination as the type of Walckenaeria, Blackw.

The first two species are therefore available as the type, for I cannot find that either of them has been referred to any new genus. I therefore select the first—W. obtusa, Blackw.—as the type.

Type, Trachynotus obtusus (Blackw.), 1836.-England.

PHYLLECA, Dahl, Schrift. natur. Schl.-Holstein, Bd. vi. p. 101 (1886).

Two species were included in this genus:-(1) Erigone Sundevalli, Westr.; (2) Theridium marginellum, Wid.,= P. marginata, Dahl.

The second is already preoccupied as the type of *Minicia*, Thorell (Tijds. v. Ent. xviii. 1875, p. 93, note), under the name spinosa. E. Sundevalli is thus left in as the type.

Type, Phyllæca Sundevalli (Westr.), 1861 .- Sweden.

ERIGONELLA, Dahl, Sitz.-Bericht Gesell. nat. Freunde, Berlin, p. 261 (Dec. 1901).

Two species were originally included in this genus: — Walckenaeria hiemalis, Blackw., and Walckenaeria latifrons, O. P.-Cambr. Dahl quotes them as "Typ. hiemalis (Bl.) + latifrons (Cambr.)." Since there cannot be two type species for a genus, I here select the first.

Type, Erigonella hiemalis (Blackw.), 1841.-England.

- EMBR. STRAND. "Theridiiden aus dem nördlichen Norwegen," Archiv for Mathematik og Naturvidenskab, B. xxiv. NR. 2. Kristiania, 1901.
- BOLEPTHYPHANTES, Strand, Archiv Mathem. Natur. B. xxiv. NR. 2, p. 9 (1901).

A single species—*Linyphia index*, Thor.—was included in this genus, which is cited as the type on pp. 9 and 53. Type, *B. index* (Thor.), 1856.—Europe.

HEMIPHANTES, Strand, Archiv Mathem. Natur. B. xxiv. NR. 2, p. 23 (1901).

A single species—*H. arcticus*, Strand—was included in this genus, and was cited as the type on p. 23.

Type, Hemiphantes arcticus, Strand, 1901.-Norway.

OREONETIDES, Strand, Archiv Mathem. Natur. B. xxiv. NR. 2, p. 29 (1901).

A single species is cited on p. 30 as the type of this genus -O. vaginatus (Thor.), 1872, =O. adipatus (L. Koch), 1872. Type, Oreonetides adiputus (L. Koch), 1872.

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UTOPIELLUM, Strand, Archiv Mathem. Natur. B. xxiv. NR. 2 (1901).

A single species—*Erigone mirabilis*, L. Koch, 1879, is cited on p. 31 as the type of this genus. Type, *Utopiellum mirabile* (L. Koch), 1879.

Type, copromining (

CENTROMERIA, Strand, Archiv Mathem. Natur. B. xxiv. NR. 2, p. 33 (1901).

A single species-Neriene bicolor, Blackw.-was referred to this genus.

Type, Centromeria bicolor (Blackw.), 1833 .- England.

# PSEUDOGONATIUM, Strand, Archiv Mathem. Natur. B. xxiv. NR. 2, p. 37 (1901).

A single species was referred to this genus.

Type, Pseudogonatium fuscomarginatum, Strand, 1901.-

## NOTE.

In the cases dealt with above there occur several instances of definite and doubtful substitution of new names for those prececupied, the settlement of their types being in some cases further complicated by the addition of new species not originally included in the genus for which the new name is definitely or doubtfully substituted.

It will, perhaps, be useful to explain the methods followed in such cases :--

- A. A case of a definite and distinctly stated substitution (e. g., *Cercidia*, Thor., for *Cerceis*, Menge), or where there is no doubt, since the original name is quoted as a synonym under the new one. Then in cases where
- (a) no species at all are quoted under the new name—then the species which was the type of the original genus is regarded also as the type under the new name substituted;
- (b) when one or more of the original species are quoted, then the type is to be looked for amongst these only (e.g., Cercidia, Thorell);
- (c) when new species are quoted, as well as one or more old ones, then these, too, are taken into consideration—

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for the genus is not then conterminous with the original one, but the case passes from being one of simple substitution and becomes a case of a new genus (e. g., *Diplostyla*, Emert., in relation to *Stylophora*, Menge);

- (d) when new species alone are quoted, and no old ones, then the case is one of a new genus, pure and simple (e.g., *Ceratinella*, Emert., for *Ceratina*, Menge).
- B. In a case where there is no definite substitution of a new name for an old one, or an implied substitution by virtue of a quotation of the old name as a synonym under the new one. Then
- (a) if the type species of the old genus turns out to be the type of the new one, then the new name is treated as virtually a substitution; but
- (b) if not, then it is still open to anyone to substitute a new name for the old preoccupied one, with the original type species to represent it (e. g., *Hypimma*, Dahl, in relation to *Dicyphus*, Menge).

#### The case of Erroneous Identification of Species quoted as Types.

When the species quoted as the type of a genus has been wrongly identified, then the type of the genus will be the species which has been diagnosed, and not that quoted by name, e. g.:

Example 1. See above, Cornicularia, Menge.

- Example 2. Phrizotrichus, Sim., substituted for Orthotrichus, Karsch, nom. præocc., followed by diagnosis of a species identified by Simon as vulpinus, the type of Orthotrichus. If the species be rightly identified, vulpinus, Karsch, is the type of Phryxotrichus. If, however, it be wrongly identified, then the species diagnosed under the substituted name must be the type.
- Example 3. Cyrtopholis, Sim., substituted for Cyrtosternum, Auss., nom. præocc., followed by diagnosis of Crypsidromus innocuus, Auss. (identified by Simon); while Simon quotes C. cursor, Auss., as the type. The type, however, of Cyrtopholis cannot be C. cursor, but must be the species diagnosed.